Government of
Saskatchewan

Communications

Saskatchewan Communications Advanced Network

SCAN

SCAN

A
Proposal
for a
Saskatchewan Communications
Advanced Network
(SCAN)

Presented to the Residents
of Saskatchewan for their
Consideration and Response
by
The Government of Saskatchewan

The Honourable J. Gary Lane, Q.C.
Minister Responsible for Communications

An Invitation to the Residents of Saskatchewan
from
The Honourable J. Gary Lane
Minister Responsible for Communications

Dear Sir or Madam:

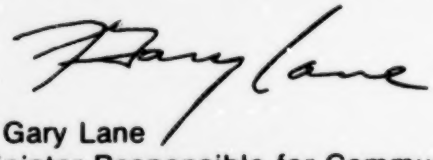
It is my pleasure to invite you to become actively involved in the formative stages of an exciting proposal filled with tremendous potential to satisfy the many educational and cultural communications needs of Saskatchewan residents.

Today's accelerated evolution of communications technology, working with novel applications of traditional technologies, is transforming our society. The coming years will offer many new possibilities which in the past have lived only in the imaginations of visionaries and futurists.

Our province currently possesses one of the world's finest telecommunications systems — the SaskTel network. Yet this very network, if used with foresight and imagination, could become increasingly responsive to escalating current and future demands. The potential exists for the creation of an advanced telecommunications network which would greatly enhance the exchange of information throughout the province in areas such as education, agriculture, technical training, skills upgrading, culture and the arts.

The question to which I invite your response is whether we want to create such a communications advanced network within our province. As the new network could impact greatly on methods available to those wishing to transmit and exchange educational and cultural information, you have a right to comment on its desirability. I ask that you consider the attached proposal carefully and then offer your impressions of the issues, in either a written brief or an oral presentation, at one of the scheduled public hearings.

On behalf of the government of Saskatchewan, I encourage you to participate in the consideration of the Saskatchewan Communications Advanced Network (SCAN) and look forward to receiving your comments and ideas at the public hearings.



J. Gary Lane
Minister Responsible for Communications

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Introduction

During the past 75 years, the government of Saskatchewan, through its Crown corporation SaskTel, has constructed a sophisticated telecommunications network designed to handle the communications needs of a widely dispersed population. Historically, the purpose of this system was simply to provide telephone service, but the requirements of Saskatchewan residents for more advanced and farther reaching communications services required that the network be progressively upgraded. Thus, it has achieved a very high level of sophistication, incorporating satellite, microwave and fibre optic technology. In fact, Saskatchewan possesses one of the most technologically advanced telecommunications systems in the world. Its capabilities — which far exceed those of the original telephone system — now allow us to communicate televised images between some communities, transmit data to and from computers located in distant cities, or receive movies which may have originated half a continent away, right in our own homes.

Saskatchewan's network, although similar to those in other provinces and countries, is unique because it has been designed and built by Saskatchewan people for their particular requirements. Although the system touches everyone in some way, its vast potential to accommodate existing and future needs has yet to be tapped. It could, for example, facilitate: the sharing of cultural experiences; access to information; training or education; or accommodate evolving needs of home computing.

Currently, people who wish to exchange ideas and information with one another are often forced to travel long distances. Many individuals who want to participate in a university or technical course are obliged to drive to larger centres such as Saskatoon or Regina, or have personnel from universities and institutes travel to outlying communities to instruct. Government departments and

agencies wishing to communicate with their clients must print and distribute information. These means of communication have not always been the most efficient.

The government of Saskatchewan has recognized that the province's modern communications system is a valuable resource which, if effectively and imaginatively utilized, could serve the public interest in many ways.

A network, to be called the Saskatchewan Communications Advanced Network (SCAN), is proposed to carry a variety of new communications services to the public, including community television, cultural information, educational services and access to computer data bases, plus a host of other services that would evolve over time. SCAN would be intended to complement traditional ways of communicating by making access to certain kinds of information easier through electronic communication.

At present, SCAN is only a proposal to which the provincial government must assess public response. Accordingly this white paper is intended to:

— describe SCAN and its potential to the public; and
— solicit public reaction to the SCAN proposal.

The following sections of this white paper describe the physical and organizational composition of SCAN, set out its limitations and explain how you can make your views known.

SCAN initially will be carried on the provincial telephone system and SaskTel's cable network or BBN (Broadband Network*). The telephone network will reach all of the province's communities with some form of information communications. As the BBN will reach

(*See Glossary, Page 11)

fifty-two communities by the end of 1984, approximately sixty percent of the province's population could have access to the full services of SCAN.

SCAN services would be delivered by:

1. specialized television: educational, informational and cultural programming would be available to anyone on the cable television network;

2. telephone conferencing*: interaction between groups would be a possibility wherever the telephone system reaches;

3. information data banks: could be accessed from anywhere on the telephone system through use of specialized equipment.

It would be possible for these technologies to be used individually, or in conjunction with one another. A live televised presentation originating in one community could, for example, be carried either to all or to select communities on the BBN, while the viewing audience might be linked via telephone conferencing to facilitate questions and discussion.

In certain communities served by the network, specialized SCAN centres could be established for the purpose of providing easier access to otherwise unavailable services. All the equipment necessary to conduct meetings, including data access terminals, telephone conferencing equipment and television receivers, could be supplied at such centres.

(*See Glossary, Page 11)

Organization

Administration of the network could be provided by an "arm's length" public agency responsible to a minister of the Crown. This arrangement would allow SCAN to be responsible to the public and to be fully objective in its dealings with users.

The proposed SCAN agency would seek to access the designated educational channel on cable television and to initiate negotiations with SaskTel to establish a rate for use of the Saskatchewan telecommunications network.

A primary function of the agency would be the administration of the network. Groups, non-profit organizations, government departments, universities and community colleges could apply to the agency for access to network facilities.

To ensure optimal utilization, the agency would be responsible for effective scheduling of unused network time to provide programming continuity and service to groups with special information needs.

Services

SCAN would be capable of providing a variety of services which promise a vast range of potential benefits to residents of the province.

Those wishing to transmit information to an audience could elect to distribute their material by: broadcasting locally produced, purchased or live television programs; selecting one way delivery of programs or encouraging audience interaction by organizing telephone conferencing; or using videotex* services for text and graphics.

(*See Glossary, Page 11)

Any of these network services could be used individually or in combination with one another, as dictated by the target audience and purpose of the information being distributed.

Individuals to benefit from SCAN services include:

— members of Saskatchewan's arts and cultural organizations, who could employ SCAN services to exchange information and provide a common cultural experience to an expanded audience;

— volunteer organizations;

— senior citizens, who could view television programs advising them of special health care services;

— farmers and ranchers;

— professionals, who could hold meetings linked via telephone conference with colleagues in other SCAN centres;

— those wishing to upgrade their skills without travelling long distances for seminars;

— kindergarten to grade 12 students, who could receive network television programming during school days;

— students, who could take sections of, or entire credit courses, without having to leave homes or jobs to relocate in distant cities, as instruction could be received at home (or at a local SCAN centre) through network services, i.e. television, telephone conferencing or videotex.

Another benefit of the development of SCAN would be the long term saving in time and money which could be realized through enhanced information transmission.

The traditional practice of constructing schools and supplying teachers to train people is expensive, and the use of space and time is not necessarily efficient. However, it has been estimated that sixty percent of certain trades courses could be taught outside the traditional school by using techniques such as television, videotex and telephone conferencing or some combination of these technologies.

SCAN, therefore, could be of considerable benefit to those students wishing to take advantage of the Saskatchewan government's initiative to increase training opportunities for technically-skilled workers.

The often prohibitive cost of travelling to a larger centre for further education would be reduced, as the network could improve access to educational opportunities by expanding the choice of courses available in smaller communities.

The realm of arts and culture also would benefit from SCAN, as Saskatchewan's artists, writers, performers and producers discovered new markets for their work through expanded opportunities.

The potential also exists for SCAN to be the catalyst for the development of an information industry. The network, as a market for high quality educational and instructional materials, could encourage the systematic gathering, packaging and distribution of Saskatchewan's recognized expertise in agriculture, mining, administration and the arts.

Content and Program Costs

Producing or adapting information for distribution through SCAN would be expensive. The cost of producing a television program of thirty minutes duration, for example, could range from $3,000 to $30,000; converting a single page of information to the videotex format could cost approximately $50; and the adaptation of a prepared university course for delivery by telephone conference

might cost as much as $10,000. These examples do not include the cost of delivery or administration.

High production costs however, must be viewed in context, taking into consideration the fact that once produced, materials could be used repeatedly and would reach a greatly expanded audience through network services.

As a result of the network's ability to deliver timely, possibly urgently required information, certain savings could be realized as a result of increased efficiency.

Content Funding

Although government departments might fund some network content, this would not necessarily represent an additional expense to them as monies spent on traditional information delivery methods could be transferred to SCAN programming.

Limitations

There would be limitations on SCAN's ability to deliver services to all Saskatchewan residents. Those cable television subscribers dwelling in one of the fifty-two communities on the BBN would be able to receive complete SCAN educational/cultural television, videotex and telephone conference services. Those individuals who receive telephone service exclusively, would be able to receive SCAN's videotex and telephone conference services. Complete SCAN service could, in time, be extended to most communities through application of specialized technologies such as satellite* or low-power television*. These system extensions, however, would be expensive to establish.

(*See Glossary, Page 11)

Availability of programming is another limitation of SCAN. A large amount of prepared material suitable for distribution on the network is currently available for purchase from sources such as TVOntario, Access Alberta, etc. It would take some time before locally produced materials were available for distribution on SCAN. The rate at which these locally produced materials became available would be determined, in part, by the development of local expertise.

Conclusion

The Saskatchewan Communications Advanced Network is a **possibility**. It **could** deliver information and expand education and training opportunities to people throughout Saskatchewan.

The purpose of this white paper is to explain the proposed network, its organization and operation.

The next stage will be to encourage reaction to the SCAN proposal at a series of public hearings which will be held in a number of locations throughout the province. Anyone wishing to submit a brief or comment is invited to attend.

Information received at the public hearings will provide guidance in the planning and development of SCAN.

The information will:

— help the government to accurately assess the need for and feasibility of a network such as SCAN;

— provide useful information to government departments and agencies with respect to the services that should be offered over SCAN; and

— provide government with an indication of the level and priority of commitment that should be applied to SCAN.

How to Respond to the SCAN Proposal

From October 15 to November 16 a committee, will conduct hearings throughout the province to assess public response to the SCAN proposal.

You are invited to share your views of the proposed Saskatchewan Communications Advanced Network with this hearing committee by:

(1) submitting a written brief;

(2) delivering an oral presentation at a hearing; or

(3) submitting a written brief summarized in an oral presentation at a hearing.

Please follow these guidelines when responding:

(A) **Written briefs:**

- — should be postmarked no later than September 28, 1984;
- — should be typed, preferably on 8½" x 11" paper;
- — should include an executive summary;
- — should include the name, address and telephone number of a contact person within the organization submitting the brief;
- — should you or your organization wish to submit a written brief, please notify the SCAN public hearing committee by August 31, 1984.

(B) **Oral presentation:**

- — will be limited to fifteen minutes;
- — should you or your organization wish to deliver an oral presentation, please notify the SCAN public hearing committee of your intention and preferred hearing location by September 14, 1984.

(C) **Oral presentation of written brief:**

- — will be limited to fifteen minutes;
- — will serve to elaborate on main points contained in the written brief;
- — should you or your organization wish to deliver an oral presentation in addition to submitting a written brief, please notify the SCAN public hearing committee of your intention and preferred hearing location by August 31, 1984.

Written briefs or notifications should be mailed or delivered to:

SCAN Public Hearings

Room 218

Walter Scott Building

3085 Albert Street

REGINA, Saskatchewan

S4S 0B1

Verbal inquiries and notifications may be made toll free from anywhere in Saskatchewan by calling:

1-800-667-5620

Locations of SCAN Public Hearings

Written briefs and oral presentations will be accepted in the following centres:

Regina, Estevan	week of October 15-19
Prince Albert, La Ronge	week of October 22-26
Yorkton, Tisdale, Humboldt	week of October 29-November 1
Swift Current, Kindersley	week of November 5-9
North Battleford, Saskatoon	week of November 13-16

(Dates will be confirmed by mail and/or in the media as soon as possible.)

GLOSSARY

BBN (Broadband Network): SaskTel's broadband network is a highly advanced electronic telecommunications system capable of carrying television signals, high speed data and thousands of telephone signals. The system — comprised of fibre optics, microwave and coaxial cable — will reach 52 Saskatchewan communities by the fall of 1984.

Low Power Television: (LPTV) Low power television systems use relatively short broadcast towers and low power outputs to transmit signals through the air a short distance (approximately 30 kilometers). These systems are useful because they are not particularly expensive and their signals can be received within the broadcast area using an ordinary television antenna.

Satellite: This system entails a circulating vehicle at a height above the earth which receives signals from an uplink station and retransmits them to earth, where they, in turn, are received on "dishes". Satellite systems are particularly useful when transmitting information to remote areas, such as northern Saskatchewan.

Telephone Conferencing (Teleconferencing): Specialized electronic equipment is employed in conjunction with the telephone network to allow conversation between groups of more than two individuals at a time. Individuals in each group use special press-to-talk microphones to interact with the other groups. Audio speakers and microphones allow everyone at each location to hear the conversation and to be a participant.

Videotex: Videotex is a generic name used in North America to describe a system whereby "pages" of text and graphic information are transmitted from a computer to be displayed on a television screen. The Canadian form of videotex is often referred to as Telidon. The system is interactive to the extent that users can call up specific pages of information from a data base using key pads or computer key boards. A videotex service now offered in Saskatchewan called "Agritex" provides access via telephone lines to data bases which contain a wide range of information pages. Agritex carries information on farming, weather, entertainment and a variety of other services. Videotex has also been successfully employed to provide educational information.